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MERRY MAIDS OF GREECE, IN COSTUMES OF ISLAND, PLAIN, AND MOUNTAIN

Greek society girls sitting in the seats of the mighty in the Theater of Dionysus, cradle of classic drama, in Athens. They wear the native dress of Astypalaia, a former Greek island (near Santorin or Thira); Gida, in the Macedonian plain, and Ioannina, in the mountains of Epirus (See Bulletin No. 1 and accompanying map).

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Greek Island of Thira To Harness Volcanic Heat

HEAT from the craters of volcanoes on the island of Thira (formerly called Santorin) will be put to work for mankind if engineering rights just granted are carried out.

Thira is at least one place in the world where a boiler factory might not be unwelcome. Natives of this tiny outpost of Greece in the Aegean Sea have become so accustomed to being rocked to sleep by the heavy rumblings and rifle-crackings of volcanoes that, it is said, some of them suffer from insomnia between eruptions.

One Time the Top of a Huge Volcano

For thousands of years Thira has been a theater of volcanic activity. The waters of its great bay have boiled and flamed for days, and islands of red-hot matter have risen and disappeared as if controlled by stage machinery.

At one time Thira was the top of a huge active volcano. It probably owes its present peculiar crescent shape to a tremendous eruption some thirty-five centuries ago when great gaps were blown in its sides. Another theory is that the mountain mass on which the volcano rested has sunk, leaving only the highest portions of the crater's rim above the surface of the water.

Volcanic activity in this part of the Aegean is almost a continuous performance, although nothing short of a catastrophe seems to be recorded as an "eruption." B. C. 197 is given by some authorities as the date of the first great eruption. There have since been several major outbreaks, causing the appearance and disappearance of certain small islands (not the present ones) in the crater.

The number "7" figures largely in the dates chosen by the volcano to be active. Records show eruptions during B. C. 197 and A. D. 726, 1570, 1573, 1707, 1711, 1867 and 1870. During the latter eruption an island arose in the center of the basin to a height of 420 feet. It was named George Crater, for King George of Greece.

Pumice Stone and Wine, Chief Exports

To-day the remainder of the once great rim can be traced only by the islands which help to inclose the water-filled crater. In the center of this basin lie the Kaymani Islands, representing the peaks of new volcanic upheavals.

The islands, which are on the direct steamer route between Athens and Egypt, are not prepossessing from a distance. Owing to the lack of water there are no trees. The inner walls of the crater descend to the central basin in sheer cliffs, from 600 to 1,000 feet in height. The external slope, however, is more gradual and the thick layer of pumice stone, which covers it, is favorable to vine growth.

In close proximity on this slope are the two principal sources of wealth. The mining and shipping of "Santorin earth," a composition of pumice stone valuable as a hydraulic cement, and the production of wine furnish employment to most of the 15,000 inhabitants of these islands, whose combined area is only half that of the District of Columbia.

Phira, the modern capital, nestles on the spur of a hill at the edge of the inner basin. A zigzag road winds up to it from its port, Skala, directly below, and its white houses and cupolas enliven the brown crater walls in the bright Mediterranean sunshine.

Approaching Thira by steamer from the northwest the gentle vine-clad outer slopes formed by the crater suddenly open and disclose an enormous basin, seemingly enclosed on all sides, the deep brown rock walls of which are stratified, like marble cake, with deposits of lighter colored pumice stone. Clinging to the crater

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AMERICANS ENLIST IN A PALESTINE WAR AGAINST THE LOCUST

In the path of the locusts was sunk a bottomless box, the inside lined with shining tin, up which the locusts could not crawl, while on each side a back-stop was provided, similarly prepared with a smooth metal face, with the object of directing them into the box. The fighters made two long lines, one on each side of the trap. A large flag, the darker the better, proved to be the most formidable tool one could employ to make them move in the desired direction. Note the thickened masses driven together and just entering the trap. The locusts at this stage of their development cannot fly (See Bulletin No. 2).

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The Locust: Food, Fodder, and Pest

THREE nations—France, England and Italy—have united in a war on the locust. All three have large colonial possessions in Africa, chief home of the insect, and, according to the terms of the new agreement, data about locusts and methods of controlling them will be made available to all at a central clearing house for information, in London.

It is almost impossible for anyone who has not seen a plague of locusts to realize their size and numbers, and the horrors of living for weeks at a time in a country where locusts fly into your face, enter your house, and even drop into your food.

Noise To Keep Them from Alighting

When a locust "cloud" looms on the horizon in Africa hundreds of Arab and Spanish laborers, overseers, and even wealthy French land-owners themselves, and semi-naked Arab children go into the fields and walk abreast in an almost straight line, beating old wooden pails, empty boxes, a vegetable can, or a drum, or blowing a tin trumpet or twirling a policeman's rattle. Each person or child walks in a furrow, attempting, by deafening noises, to keep the locusts from settling.

If, however, the locusts do succeed in alighting, nothing can drive them off. Usually they take wing again the following morning—after stripping everything green from the landscape—unless the time has arrived for the female locust to lay her eggs. The female digs holes in the earth two or three inches deep, in which she deposits from sixty to seventy eggs, enveloped in a glutinous secretion, shaped somewhat like an ear of wheat.

Men have to plow and spade every inch of the ground when eggs are laid, for the nymphs, hatched from the eggs, are more destructive than the locusts, and the only way to prevent the eggs from hatching is to uncover them and leave them in the open sunlight.

Fire and Water Fail To Stop Them

The period of incubation is twenty-one days; then tiny creatures—called nymphs—crawl out. They remain quiet for two days and then begin to eat. They eat and eat and eat. Men with torches burn the nymphs by the millions, but they crawl out of the earth faster than the hand of man can destroy them. The first one to come out takes the lead, and the others follow in swarms many feet wide. They make a curious noise, like the sound of the sea.

It seems incredible that a thing so small and insignificant is so difficult to destroy. Build great fires and the swarms of crawling, wriggling nymphs will smother them, those in front being burned by millions, and those in the rear pushing on and passing over the burned bodies of the leaders. They will block and fill up a sluggish African stream, and the millions in the rear will pass over unharmed.

The government sends troops to aid in the defense, for it means ruin and starvation to thousands of people, besides heavy money losses. Great trenches are dug and the nymphs fall in, and, when the trench is three-fourths full, kerosene oil is poured on the locusts and they are set afire, or else earth is thrown on them to a depth of about two feet. They can crawl out of the earth if only covered with a few inches, but when deeply covered they smother to death.

The young locusts are most destructive, selecting the choicest vegetables or tender shoots and green leaves. It takes weeks for them to develop from tiny,

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rim are several small villages and numerous many-sailed windmills, similar to those on the Isle of Samos, near-by.

The ancient capital, Thira, seven hours away by horseback on the eastern shore, perches on a ridge or plateau dropping on three sides. It must have been easy to defend in the days when the island was in turn a Phoenician, a Spartan, an Egyptian, a Roman, a Frank and a Turkish colony.

Note: See also "New Greece, the Centenarian, Forges Ahead," *National Geographic Magazine*, December, 1930; "Seeing 3,000 Years of History in Four Hours," December, 1928; and "The Glory That Was Greece," December, 1922.

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MODERN GREECE AND ITS ISLAND OUTPOSTS

Thira (shown under its former name "Santorin" on this map) is one of the Cyclades, famous in legend, art and story of ancient Greece. With its islands, modern Greece has an area about equal to that of New York State, and a population of 6,200,000, half that of New York State. The inset, showing one of the 1930 Centenary postage stamps (actual size), illustrates the growth of the nation since its independence was established.

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To Honor Washington on World's Most Famous Battlefield

ON THE sun-parched plain of Esdraelon, in Palestine, George Washington will be honored by a memorial forest of 500,000 stately pine and eucalyptus trees. More than 200 American religious, educational and social leaders of the Jewish faith have adopted this means of paying their respect to the First President.

Esdraelon, better known by its Biblical name, Armageddon, is the most famous battlefield in the world. On this site, predicts St. John the Divine in the Book of Revelation, "the Kings of the earth and of the whole world" are to be gathered in the last great conflict. Armageddon has made its way into our language as a word meaning "the fight to end fighting."

Economic Warfare To-day

Many battles have been fought at Armageddon, and in turn the dust of marching hordes of Assyrians, Egyptians, Greeks, Romans, Arabs, Crusaders, French, Turks, and English has risen from the roads which cross it in all directions. But the Battle of the Centuries must still be far ahead. To-day groups of Jewish colonists, by settling these fertile fields, wage a silent but constant economic warfare with the local Arabs.

It was at Armageddon that the army of Necho, King of Egypt, overwhelmed Josiah, King of Judah, about 609 B. C. It was the scene of the final defeat of Saul by the Philistines. Napoleon followed the Crusaders' trail by way of Armageddon, and lost the only battle of his Syrian campaign at Acre, near-by. Lord Allenby, commander of the British forces in the Near East, fought one of the final battles of the World War (appropriately enough, it was thought at the time) at Armageddon, when he vanquished a Turkish army gathered on the plain.

The Plain of Esdraelon, or Megiddo, as Armageddon is also called in Palestine to-day, is a wedge-shaped triangle a few miles south of Nazareth, and is perched in a mountain saddle about midway between the sunken valley of the Jordan and the Mediterranean Sea. It is in the plain over which Jesus gazed when the people of Nazareth took him up on the hill to cast him down. The dazzling white walls of the little town rise from one of the valleys which run northward into the Galilean Hills.

The main road between Haifa and Jerusalem crosses the Kishon River at the point where the field of Armageddon widens toward the interior. The railroad line from Haifa to Damascus bisects the plain. Cranes and storks abound on the plain during certain seasons and fleet-footed gazelles occasionally are seen.

Victory in a Rain Cloud

The land is both fertile and muddy. The blackish soil consists of decomposed volcanic rock, which, in rainy weather, attains the sticky consistency of gumbo soup, making travel off the main roads impossible. Frequent references have been made by military leaders and historians to the muddy character of the field. Defeat or victory has often been balanced on a rain cloud. At other times the plain is swept by choking clouds of dust.

Although the plain is lower than the surrounding barren hills there are low ridges across it, and these ridges are used by the modern highway. All the rock for this road had to be brought from the near-by limestone hills, while basalt for the surface had to be transported from the Jordan Valley.

black nymphs into full-sized locusts, but they increase rapidly in size, and one can almost see their legs and wings develop.

Saint John the Baptist is spoken of as having lived on locusts and wild honey. From the earliest times the tribes that dwelt on or near the great deserts of Persia, Arabia, and Africa have eaten dried locusts as food, and they will keep on doing so as long as huge swarms fly out of the desert.

Arabs eat the flesh of locusts when killed by themselves, but refrain if their death has been caused by cold or the hand of an infidel, as they are then considered impure. Locusts are eaten after the legs, wings, and heads have been picked off.

They are either grilled or boiled, and prepared with native wheat. If dried in the sun they are ground to powder and mixed with goats' or camels' milk and cooked in fat or butter and salt. Almost every animal devours locusts; even camels appear to like them as food.

Note: For supplementary reading and photographs see "Exploring the Wonders of the Insect World," *National Geographic Magazine*, July, 1929; "Strange Habits of Familiar Moths and Butterflies," July, 1927; "Fighting Insects with Airplanes," March, 1922; "Protecting the United States from Plant Pests," August, 1921; and "Jerusalem's Locust Plague," December, 1915.

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LOCUSTS DARKEN THE SKY OVER AN ISLAND IN THE SULU SEA

This is the sight that greeted the eyes of frightened natives of one of the Philippine Islands when they heard the rushing, whirring noise of many wings one afternoon. The rays of the sun were dimmed by seemingly endless swarms, which stripped the country clean.

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The Old English Inn Still Has Its Sign Out

LONDON'S historic George Hotel, in Southwark, famous as an old coaching station, is to be taken over by the Society for the Preservation of Ancient Monuments. The George is almost identical with the near-by White Hart, now demolished, where Mr. Pickwick, of Dickens' "Pickwick Papers," met Sam Weller. The guest rooms of the George, which dates from 1676, open upon a picturesque court. Here stagecoaches were loaded and unloaded in the days before railroads and railroad stations in England. Its coffee room to-day is the gathering place of luncheon groups of Southwark business men.

The old English inn still has its sign out. Lacking frills, it nevertheless offers ample comfort to keep it a going concern despite the times. Many a Red Lion or Green Dragon can boast of a record of active hospitality dating back for hundreds of years without a break,

Plenty of "Hidden" Retreats

The old inn is a living factor in the scheme of modern English existence. Attracted by its charm, thousands resort to it for lodging or refreshment, and most innkeepers are fully aware of the advantages of preserving ancient traditions.

Now and then it happens that an old hostelry seems to be such an idyllic survival from a bygone day, so invested by romance, and so hidden in an out-of-the-way corner that you come upon it only by the barest lucky chance—a discovery you must ever afterward cherish in lavender and rose petals of memory as too rare to befall one mortal twice in a lifetime. But, as a matter of actual fact, old inns are dotted over the whole length and breadth of England.

Most of the Swans and Mermaids, the Mitres, White Harts, and Crowns, are not concealed in remote places, so far off the beaten lines of travel that they require special visits to be seen. No particularly keen sight is required to discover them. Not a few of them you will find beside busy highways and in country towns, where every day a constant stream of traffic passes them.

"Collecting" Inns as a Hobby

Besides all the old inns you cannot help discovering on the main roads and in the towns, there are those others, of course, on lonely heaths or fronting peaceful village greens. There are likewise modest "ordinaries" by the brinks of little rivers where the disciples of Izaak Walton love to lodge. And there are inns at bridge ends, or where roads meet, to say nothing of inns whose windows look out to sea, or command quaint harbor views.

In short, there are plenty of them of all kinds to offer an admirable field for the collector. And a more fascinating holiday hobby than collecting old inns it would be hard to imagine.

Gratifying this hobby involves no great expense; there is always the lure of wholly fresh discoveries to be made; and of variety there is no end, for no two are alike. Furthermore, collecting inns is not a pursuit merely for dry-as-dust, antiquarian poking and prying; it is alive with the full-running sap of human interest, human interest both past and present.

At a tiny roadside inn in Cheshire the waitress asks whether one will have "meat tea or sweet tea." That little inn at Tarporley and that waitress, with her naive rhyming distinction between the modes of tea-serving, always sticks more

The site of the ancient fortified town of Armageddon, from which the battlefield took its name, is not on the main road and is isolated during the rainy season. An American financier recently built a branch road from Tell el Kassis to the tell, or mound, of the town of Armageddon, on which American archeologists are at work.

In Biblical days it was a place of considerable strategic importance, but the modern Arab settlement, El-Lejjun, is a rather sorry remnant of an illustrious past.

Note: Students interested in Palestine and other parts of the Holy Land should also consult: "Crusader Castles of the Near East," *National Geographic Magazine*, March, 1931; "Bethlehem and the Christmas Story," December, 1929; "Among the Bethlehem Shepherds," December, 1926; "Flying over Egypt, Sinai, and Palestine," September, 1926. The Samaritans are described in "The Last Blood Sacrifice, a Samaritan Rite in Palestine," January, 1920.

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NEAR ARMAGEDDON THE SAMARITANS CELEBRATE THE PASSOVER

No forks, knives, or spoons are used at this ancient Palestine religious feast and great care is observed not to break a bone. The members of six families collect, each around one of the bowls of cooked lamb—men, women, children, and nursing babies. This is perhaps the oldest religious rite that has been continuously kept.

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The Channel Islands, Bits of France Inherited by England

WHO wants to buy an island? Brechou, smallest of the Channel Islands, is for sale. The purchaser may have a seat in the Parliament of Sark, a small British feudal State, of which the island of Brechou is a part, and a domain three-quarters of a mile long and half a mile wide.

Victor Hugo called the Channel Islands "Bits of France fallen into the sea and picked up by England." Considering that the Channel Islands lie only a few miles off the coast of Normandy, and are separated from England by the entire width of the English Channel, Hugo was right—geographically.

Never Part of French Nation

But the Channel Islands have never been under French royal or French republican rule. They have been inherited continuously by the Kings of England, as successors of the dukes of Normandy, since 1204.

The latter days of the nineteenth century were marked by peace and prosperity for all the islands. In Jersey potato farming brought great wealth to the inhabitants; in Guernsey granite quarries and tomato houses, though marring the island's former picturesqueness and beauty, have increased its riches. The dairymen of Jersey, Guernsey, and Alderney have so increased and improved their breeds of cattle that these are in demand everywhere and are exported to the ends of the earth.

Jersey, with its wooded valleys, its winding lanes, overarched with foliage; its orchards, its miles of glistening sand, its quaint old churches and picturesque granite farmhouses, and dominated always by the magnificent ruins of Mont Orgueil Castle, gives the impression of unbounded prosperity and fertility. Its lands having been owned always by a race of peasant proprietors, the country shows that it has been cultivated for its own sake by men who loved it and not by hirelings.

Naturally enough, so much beauty has bred a race of artists, the most famous being Monamy, Le Capelain, Jean the Miniaturist, Ouless, Sir John Millais, and at the present day Messrs. Lander, Le Maistre, and Blampied.

Guernsey, alas, is spoiled, from a scenic standpoint, by miles of greenhouses and acres of quarries. But its cliffs and bays are magnificent, and Moulin Huet is perhaps the most lovely spot in the islands. There are still to be found some wooden walks and lanes, old stone walls and arched gateways, which are as yet unmarred by the utilitarian demands of modern agriculture and industry.

Victor Hugo Wrote Three Famous Novels in Guernsey

Saint Peter Port, built on the side of a hill, retains a certain amount of its former picturesqueness; it is traversed by a curious succession of long granite stairways, and, with its high red-roofed houses, has a foreign appearance—"*Caudebec sur les épaules de Harfleur*," as Vasquerie described it when on a visit to Victor Hugo, who was then living in the islands as an exile from France.

It was during the great Frenchman's residence in Guernsey that he wrote much of his poetry and three of his best-known novels—"*Les Misérables*," "*The Man Who Laughs*," "*The Toilers of the Sea*." In commemoration of his exile the French nation brought over and erected a statue to his memory in July, 1914.

vividly in the visitor's memories than even the kindly landlord's vast pride in showing all his antique furniture and his old Spode china.

Dick Turpin's Birthplace

Time and again you will chance upon a bit of history or romance and find the local associations with some famous personage proudly treasured by the countryfolk. Think, for instance, of dropping into Dick Turpin's birthplace, the Rose and Crown, in the Essex hamlet of Hempstead! Think of drinking a toast on the spot to the memory of that doughty knight of the road! His father was the Hempstead publican of that day, and the people thereabout all know Dick's story and can point out to you his cockpit, now marked by a ring of trees, just across the way, beside the stream.

Amid backgrounds no less alluring and highly varied, you can keep company at Portsmouth with Lord Nelson and the Duke of Wellington; at Grantham with Richard III; at Guildford with Samuel Pepys; at Chigwell with Queen Elizabeth; and at Broadway, if you like the contrast when extremes meet in the same inn, with both King Charles the Martyr, and Oliver Cromwell.

To the George at Portsmouth, famous in the unofficial annals of the British Navy, went Nelson on that September morning in 1805 for a few hours' rest after an all-night journey to join his flagship *Victory* for the last time.

Note: The old George Hotel is described and shown in photographs in "Some Forgotten Corners of England," *National Geographic Magazine*, February, 1932. See also "Visits to the Old Inns of England," and "Cradles of English History," March, 1931; and "Vacation in a Fifteenth Century English Manor House," May, 1928.

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© *Photograph by A. W. Cutler*

ENGLAND'S "CROOKED INN" CERTAINLY LIVES UP TO ITS NAME

This unique hotel, at Kindswinford, in Staffordshire, leans both within and without, but business goes on as usual. Note the buttress of brick at the end, to check any further slanting. This is a rear view of the inn in its rural setting.

The lesser islands, Alderney, Sark, Herm, and Jethou, are comprised in the bailiwick of Guernsey.

Alderney, described by Napoleon as the shield of England, was considered, in the days before aircraft, submarines, and long-range guns revolutionized warfare, to be the key of the channel. Consequently, during the Napoleonic wars, forts were erected here by the British Government at vast expense.

Inhospitable as the island looks to the wayfarer, it has a savage, untamed beauty denied to the other islands. It is surrounded by the most dangerous currents and the wildest seas in the English Channel.

Seven miles west of Alderney lie the famous Casquet rocks, "where the carcasses of many a tall ship lie buried." In spite of many petitions and numberless tragedies, it was not until 1723 that the British Government established a beacon light on these dangerous rocks; and then it was but a coal fire burning upon an armorer's forge and kept alight by bellows.

Naturally, the fiercer the gale the more the light was extinguished by the spray, and the toll of ships so increased that in 1779 this primitive appliance was superseded by an oil light in a copper lantern. Nowadays there is a fog-signal station and a lighthouse with a brilliant revolving light.

No one can claim to have seen the Channel Islands until he has seen Sark, which is an epitome of the beauty of them all. It contains the wooded valleys of Jersey, the brilliant lichen-covered cliffs of Guernsey, and its own carpet of wild flowers and sea-anemones, while the natural magic of its beauty is supplemented, to the initiate, by the magic-working powers of some of the old inhabitants.

See also "The Channel Islands," *National Geographic Magazine*, August, 1920. For color illustrations of the costumes of near-by France see "Charm and Color of Norman Byways," and "The Land of William the Conqueror," January, 1932; and "St. Malo, Ancient City of the Corsairs," August, 1929.

Bulletin No. 5, April 4, 1932.

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GUERNSEY CATTLE, A BREED DEVELOPED ON A TINY CHANNEL ISLAND

Three-of-a-kind are not common among cattle, and these were the first triplet heifers to be registered by the American Guernsey Cattle Club. Another famous milk producer, the Jersey, also is a native of the Channel Islands. Both Guernsey and Jersey cows may be seen in many parts of the United States, principally in Wisconsin, New York State, Texas, and Ohio.

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